

REMARKS/ARGUMENTS

Applicant appreciates the Examiner's thorough search and examination of the present patent application.

The drawings stand objected to under 37 C.F.R. §1.84(p)(5). Accordingly, applicant has amended claims 1-13 and removed use of reference symbols therein. Accordingly, applicant submits the amendments to the claims overcome the Examiner's objection to the drawings, and reconsideration is respectfully requested.

The abstract of the disclosure stands objected to because there are more than 150 words in it. Accordingly, the abstract has been amended. Reconsideration is requested.

Claims 1-13 stand rejected under 35 U.S.C. §112, second paragraph, because they contain reference signs/numbers that are missing in the drawings. As noted above, claims 1-13 have been amended and reference signs have been removed, thereby overcoming the Examiner's rejection under 35 U.S.C. §112. Reconsideration is requested.

Claims 1-2, 4-6 and 8-11 stand rejected under 35 U.S.C. §102(e) as being anticipated by Grace ("Grace," U.S. Patent Application Publication No. 2003/0112235 A1). Applicant respectfully traverses this rejection.

Applicant's claim 1, as amended, is directed to a method for determining "physico-chemical" properties of a "three-dimensional body." In particular, applicant's claim 1 includes generating a "first database" that contains "first data on bores intersecting" the body, wherein the data define the "location and physico-chemical properties" of the body "at [the] bores." Also, a "first surface" is defined in a "spatial center of the three-dimensional body by triangulation." The "first surface extends along two main directions of [the] body." Moreover, a "cluster of points" is defined on the first surface that is "generated with regular spacings in [the] two main directions of the three-dimensional body." Further, a "second surface" is generated by creating "linked triangles between the points of [the] cluster of points" and "constituted by [the] triangles."

Continuing with reference to applicant's claim 1, "second data" are calculated by an "interpolation method" and based on the first data. Further, "physico-chemical properties of the three-dimensional body" are calculated "at [the] points of [the] cluster of points." Thereafter, a "second database" is generated "using the triangles constituting the second surface." The second

database contains, for “each triangle constituting the second surface” the “coordinates of the vertices.” Moreover, the second data define “calculated physico-chemical properties of the three-dimensional body at [the] vertices of the triangle, and the area of the triangle in space.” Further, reports are generated “with information from the second database,” and “three-dimensional graphical representations” are generated based on the second database.

Applicant respectfully submits that Grace does not teach or suggest this combination of features, and that, therefore, Grace cannot anticipate applicant’s claim 1 under 35 U.S.C. §102(e).

Grace is directed to method and system for “constructing three-dimensional polygonal models of the three-dimensional irregular volumes (e.g., natural fields, natural bodies, and the like) for use in a [geographic information system (‘GIS’)] system” (see paragraph [0010]). Although Grace relates to three-dimensional models of a body, the methods taught and suggested by Grace are patentably distinct from applicant’s claim 1, and, further, elements of applicant’s claims are missing from the teachings of Grace.

Turning now to the Examiner’s specific rejection, the Examiner concludes that Grace teaches applicant’s claimed step (b) of “defining a first surface in a spatial center of the three-dimensional body by triangulation, so that said first surface extends along two main directions of said three-dimensional body” and cites to paragraph [0056] of Grace for support. Applicant respectfully submits that this feature of applicant’s claim 1 is not taught by Grace, and that the cited passage teaches, instead, that a surface is generated in a top part of a body, another surface is generated in a bottom part of a body, and a further surface is produced in the sides of the body, interconnecting the edges of the top and bottom surfaces so as to generate a three-dimensional irregular volume. This is patentably distinct from applicant’s claimed feature of “defining a first surface in a spatial center of the three-dimensional body by triangulation, so that said first surface extends along two main directions of said three-dimensional body.”

Moreover, the Examiner concludes that Grace teaches applicant’s claim 1 step (c) of “defining on [the] first surface a cluster of points generated with regular spacings in said two main directions of the three-dimensional body.” In particular the Examiner cites to paragraph [0066] for support. However a careful review of this paragraph indicates that Grace teaches the use of polylines that are regularly spaced in the top, bottom and side surfaces to generate a wire

frame model representing the three-dimensional volume. Applicant respectfully submits that regularly spaced polylines for generating a wire frame model is patentably distinct from applicant's claimed step of "defining a cluster of points" in a "first surface" that is defined in a "spatial center of the three-dimensional body by triangulation." Applicant respectfully submits, therefore, that Grace does not teach or suggest this element of applicant's claim 1 and, therefore, Grace cannot anticipate applicant's claim 1 under 35 U.S.C. §102(e).

Moreover, following a careful review of Grace, including paragraphs [0056] and [0066] which are similarly cited by the Examiner, applicant respectfully submits that Grace does not teach or suggest applicant's claimed step (d) of "generating, by creating linked triangles between the points of [the] cluster of points, a second surface constituted by said triangles." Moreover, Grace does not teach or suggest applicant's claimed step (e) that defines "calculating, by an interpolation method and based on [the] first data in the first database, second data defining calculated physico-chemical properties of the three-dimensional body at said points of said cluster of points." In particular, Grace does not teach or suggest applicant's claim 1 cluster of points, and, therefore, Grace cannot teach "calculating ... second data defining ... physico-chemical properties of the three-dimensional body at said points of said cluster of points."

Therefore and for the foregoing reasons, applicant submits that elements of applicant's claim 1 are missing from the teachings of Grace and, accordingly, Grace does not anticipate applicant's claim 1. Claim 2, 4-6 and 8-11 depend directly or indirectly from claim 1 and are, therefore, patentable as well as because of the combination of features in those claims with the features set forth in the claim(s) from which they depend.

Claim 3 stands rejected under 35 U.S.C. §103(a) as being unpatentable over Grace as applied to claim 1. Claims 12 and 13 stand rejected under 35 U.S.C. §103(a) as being unpatentable over Grace as applied to claim 1 and 11 above, and further in view of applicant's admitted prior art. Applicant respectfully traverses these rejections.

As noted above, Grace does not teach or suggest applicant's features of claim 1, including steps b), c), d) and e). Moreover and contrary to the Examiner's conclusion, nowhere in the Background section of the applicant's patent application nor in any admitted prior art, is there any teaching or suggestion of one or more of these steps. Therefore, applicant respectfully submits that claims 3, 12 and 13 are patentable as well as because of the combination of features

in those claims with the features set forth in the claim(s) from which they depend.

For the foregoing reasons, the Examiner is respectfully requested to reconsider the application, allow the claims as amended and pass this case to issue.

I hereby certify that this correspondence is being deposited with the United States Postal Service with sufficient postage as First Class Mail in an envelope addressed to: Mail Stop Amendment, Commissioner for Patents, P.O. Box 1450, Alexandria, Virginia 22313-1450, on August 20, 2007:

Joel J. Felber

Name of applicant, assignee or
Registered Representative

Signature

August 20, 2007

Date of Signature

CPL:JJF:ck

Respectfully submitted,

Joel J. Felber

Registration No.: 59,642

OSTROLENK, FABER, GERB & SOFFEN, LLP

1180 Avenue of the Americas

New York, New York 10036-8403

Telephone: (212) 382-0700